

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

Claims 1-36 (Cancelled)

37. (Currently amended) A process for the manufacture of polymer coated composite substrate, said process comprising ~~the steps of~~ :

applying a chemically crosslinkable composition onto a surface of a compressible mat;
crosslinking the chemically crosslinkable composition without heating to form a chemically crosslinked polymer coating on the surface of the compressible mat, wherein the chemically crosslinkable composition crosslinks at the point of application as the composition is ~~is crosslinked concomitant with the chemically crosslinkable composition~~ being applied to the surface of the compressible mat; and

compressing and heating the crosslinked coating and the compressible mat to form the polymer coated composite substrate.

38. (Original) The process of claim 37 wherein the compressible mat further comprises a sheet of paper which is glued to the surface of the mat.

39. (Original) The process of claim 38 wherein the chemically crosslinked polymer coating is formed on the paper.

40. (Original) The process of claim 37 wherein the polymer coated composite substrate is paper and the chemically crosslinked polymer coating is formed on a fiber mat and compressed with the mat as part of a papermaking process.

41. (Currently Amended) The process of claims 37, ~~38, 39, or claim 40~~ wherein the chemically crosslinked polymer is ionically crosslinked.

42. (Currently Amended) The process of claims 37, ~~38, 39, or claim 40~~ wherein the chemically crosslinked polymer is covalently crosslinked.

43. (Original) The process of claim 41 wherein the ionically crosslinked polymer has thermosetting functionality.

44. (Currently amended) A process for the manufacture of polymer coated composite substrate, said process comprising: ~~the steps of;~~

applying an ionically crosslinkable composition onto a surface of a compressible mat;
ionically crosslinking the ionically crosslinkable composition ~~composition~~ to form an ionically crosslinked polymer coating on the compressible mat, wherein the ionically crosslinkable composition is ionically ~~crosslinked~~ crosslinks at the point of application as the composition is concomitant with the ionically crosslinkable composition being applied to the surface of the compressible mat; and

compressing and heating the crosslinked ~~crosslined~~ coating and the mat to form the polymer coated composite substrate.

45. (Original) The process of claim 44 wherein the compressible mat further comprises a sheet of paper which is glued to the surface of the mat.

46. (Currently amended) The process of claim 45 wherein the ionically ~~chemically~~ crosslinked polymer coating is formed on the paper.

47. (Currently amended) The process of claim 44 wherein the polymer coated composite substrate is paper and the ionically ~~chemically~~ crosslinked polymer coating is formed on a fiber mat and compressed with the mat as part ~~a part~~ of a papermaking process.

48. (Original) The process of claim 44 wherein the ionically crosslinked polymer has thermosetting functionality.

49. (New) The process of claim 37, further comprising applying a top coat composition over the applied, crosslinked composition.

50. (New) The process of claim 37, further comprising applying a release coat composition.

51. (New) The process of claim 37, wherein the chemically crosslinkable composition has a solids content from about 30% to about 80% by weight.

52. (New) The process of claim 37, wherein the chemically crosslinkable composition has a solids content from about 20% to about 70% by weight.

53. (New) The process of claim 44, further comprising applying a top coat composition over the applied, crosslinked composition.

54. (New) The process of claim 44, further comprising applying a release coat composition.

55. (New) A process for the manufacture of polymer coated composite substrate, said process comprising:
applying an crosslinkable composition onto a heated press platen;

crosslinking the crosslinkable composition to form an crosslinked polymer coating, wherein the crosslinkable composition crosslinks at the point of application as the composition is being applied to the surface of the press platen; and

compressing the crosslinked coating and a compressible mat to form the polymer coated composite substrate.

56. (New) The process of claim 55, wherein the crosslinkable composition is chemically crosslinkable, and the crosslinked polymer coating is a chemically crosslinked polymer coating.

57. (New) The process of claim 55, wherein the crosslinkable composition is ionically crosslinkable, and the crosslinked polymer coating is an ionically crosslinked polymer coating.

58. (New) The process of claim 55, wherein the crosslinkable composition is covalently crosslinkable, and the crosslinked polymer coating is a covalently crosslinked polymer coating.

59. (New) The process of claim 55, wherein there is a layer of release agent on the heated press platen before application of the crosslinkable composition.

60. (New) The process of claim 55, wherein there is a layer of top coat composition on the heated press platen before application of the crosslinkable composition.

61. (New) The process of claim 60, wherein the top coat composition comprises a latex top coat composition.

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62. (New) The process of claim 55, wherein the compressible mat has been pretreated with an adhesive composition.